

LISTING OF CLAIMS

Claims 1-20 (CANCELED)

- 21. (NEW)** An isolated peptide comprising the amino acid sequence set forth in SEQ ID NO:1 which interacts with anti-apoptotic proteins of the Bcl-2 family.
- 22. (NEW)** The isolated peptide of claim 21, wherein the anti-apoptotic proteins of the Bcl-2 family are selected from, Bcl-XL, Bcl-2 and/or Bcl-W.
- 23. (NEW)** The isolated peptide of claim 21, which corresponds to a fragment or point mutant of the peptide comprising the sequence set forth in SEQ ID NO:1.
- 24. (NEW)** A nucleic acid sequence coding for the peptide of claim 21, comprising the sequence set forth in SEQ ID NO:2.
- 25. (NEW)** A nucleic acid sequence deduced according to the genetic code from the amino acid sequence of claim 21.
- 26. (NEW)** A nucleic acid sequence deduced according to the genetic code from the amino acid sequence of the peptide of claim 23.
- 27. (NEW)** A recombinant vector, comprising the sequence set forth in SEQ ID NO: 2 which is operably linked to regulatory elements for expression of the peptide of claim 21.
- 28. (NEW)** The recombinant vector of claim 27, which is a plasmid comprising the regulatory elements necessary for expression of the peptide in a host cell.

29. (NEW) A host cell, which has been transformed with the recombinant vector of claim 27.

30. (NEW) A method for identifying a compound which modifies the interaction between the peptide of claim 21, and an anti-apoptotic protein of the Bcl-2 family, comprising the following steps:

- a) fluorescently labelling the peptide of claim 21;
- b) incubating the labelled peptide in the presence or absence of a test compound;
- c) adding a fusion protein comprising an anti-apoptotic protein of the Bcl-2 family; and
- d) measuring the fluorescence polarisation.

31. (NEW) A method for identifying a compound which inhibits the interaction between the peptide of claim 21, and an anti-apoptotic protein of the Bcl-2 family, comprising the following steps:

- a) fluorescently labelling the peptide of claim 21;
- b) incubating the labelled peptide in the presence or absence of a test compound;
- c) adding a fusion protein comprising an anti-apoptotic protein of the Bcl-2 family;
- d) measuring the fluorescence polarisation; and
- e) selecting a test compound for which the increase in fluorescence polarisation observed with the test compound is significantly less than that observed without the test compound.

32. (NEW) A method for identifying a compound which enhances the interaction between the peptide of claim 21, and an anti-apoptotic protein of the Bcl-2 family, comprising the following steps:

- a) fluorescently labelling the peptide of claim 21;
- b) incubating the labelled peptide in the presence or absence of a test compound;
- c) adding a fusion protein comprising an anti-apoptotic protein of the Bcl-2 family;
- d) measuring the fluorescence polarisation; and

e) selecting a test compound for which the increase in fluorescence polarisation observed with the test compound is significantly greater than that observed without the test compound.

33. (NEW) The method of claim 30, wherein the anti-apoptotic protein of the Bcl-2 family is Bcl-2.

34. (NEW) The method of claim 30, wherein the anti-apoptotic protein of the Bcl-2 family is Bcl-XL.

35. (NEW) The method of claim 30, wherein the anti-apoptotic protein of the Bcl-2 family is Bcl-W.

36. (NEW) The method of claim 30, wherein the peptide comprises the amino acid sequence set forth in SEQ ID NO:1.

37. (NEW) The method of claim 30, wherein the peptide is fluorescently labelled with fluorescein.

38. (NEW) The method of claim 30 for identifying a compound to modulate apoptosis.

39. (NEW) The method of claim 30 for identifying a compound for the treatment of pathologies involving deregulation of apoptosis.

40. (NEW) The method of claim 30 for identifying a compound for the treatment of autoimmune diseases, neurological disorders and cancers.